

Notice of Allowability

Application No.

10/817,288

Examiner

Callie E. Shosho

Applicant(s)

LEE ET AL.

Art Unit

1714

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to amendment filed 11/10/05 and telephonic interview conducted 11/21/05.
2. ☒ The allowed claim(s) is/are 1,5-10,13,15,34,38-43,46 and 48.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☒ Interview Summary (PTO-413), Paper No./Mail Date 11/21/05.
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

Examiner's Amendment

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

(1) In the specification, page 1, first line after the Title, insert "This is a divisional of Application No. 09/702,185 filed October 30, 2000, now U.S. Patent No. 6,740,689".

(2) Claim 1, line 10, after "R", delete "can be" and insert "is".

(3) Claim 5, line 1, after "the", delete "cationic polymer" and insert "anionic binder".

(4) Claim 13, line 1, after "the" delete "polyelectrolytes" and insert "polyelectrolyte".

(5) Claim 34, line 14, after "R" and before "H", delete "can be" and insert "is".

(6) Claim 38, line 1, after "the", delete "cationic polymer" and insert "anionic binder".

(7) Claim 46, line 1, after "the" delete "polyelectrolytes" and insert "polyelectrolyte".

2. Authorization for this examiner's amendment was given in a telephone interview with Brad Haymond on 11/21/05.

Statement of Reasons for Allowance

3. The present claims are allowable over the “closet” prior art Takahashi et al. (U.S. 5,624,484), Kurabayashi et al. (U.S. 5,700,314), Kabalnov (U.S. 6,261,350), and Watanabe et al. (U.S. 6,080,229) for the following reasons:

Takahashi et al. disclose an ink jet printing apparatus comprising one printhead portion containing underprinting fixer fluid composition i.e. liquid composition, comprising cationic component, i.e. polyelectrolyte and one printhead portion containing ink comprising anionic dye and anionic polymer. The cationic component includes quaternary ammonium salt type compounds. There is further disclosed method of ink jet printing comprising ejecting at a location on the printing medium the fixer fluid followed by ejecting the ink at the same location on the printing medium.

Kurabayashi et al. disclose an ink jet printing apparatus comprising one printhead portion containing underprinting fixer fluid composition i.e. liquid composition, comprising cationic component, i.e. polyelectrolyte and one printhead portion containing ink comprising anionic dye and anionic high molecular weight substance. The cationic component is quaternary ammonium salt type compounds. There is further disclosed method of ink jet printing comprising ejecting at a location on the printing medium the fixer fluid followed by ejecting the ink at the same location on the printing medium.

However, both Takahashi et al. and Kurabayashi et al. disclose that the cationic polyelectrolyte has molecular weight of 1,000 or less. This is in direct contrast to the present

claims that all require that the cationic polyelectrolyte has molecular weight of from 2,000 up to 10,000.

Kabalnov discloses an ink jet printing apparatus comprising one pen, i.e. printhead portion, containing underprinting fixer fluid composition comprising cationic component and one pen, i.e. printhead portion, containing ink comprising anionic dye and anionic binder such as hydrolyzed styrene-maleic anhydride. The cationic compounds include polyethyleneimine which is intrinsically branched as well as quaternary ammonium type salts. There is further disclosed method of ink jet printing comprising ejecting at a location on the printing medium the fixer fluid followed by ejecting the ink at the same location on the printing medium.

However, applicants filed 1.131 declaration on 7/5/05. The 1.131 declaration is proper and suffices to enable applicants to swear behind the filing date of 8/17/99 of the Kabalnov reference. Thus, Kabalnov is not applicable against the present claims.

Watanabe et al. disclose an ink jet printing apparatus comprising one printhead portion containing underprinting fixer fluid composition comprising cationic component and polyvalent metal salt and one printhead portion containing ink comprising anionic dye and anionic polymer. The cationic compounds include quaternary ammonium salt type compounds of the formula $R^1R^2R^3R^4N^+X^-$ while the polyvalent metal salt provides cations such as calcium, aluminum, barium, and magnesium. There is further disclosed method of ink jet printing comprising ejecting at a location on the printing medium the fixer fluid followed by ejecting the ink at the same location on the printing medium.

However, there is no disclosure in Watanabe et al. that the cationic compound possesses molecular weight of from 2,000 up to 10,000 as required in all the present claims. As noted by applicants on pages 8-9 of the amendment filed 7/5/05, at its largest, the quaternary ammonium salts described in Watanabe et al. possess molecular weight well below 1,000.

Thus, it is clear that applicants have removed Kabalnov as a reference against the present claims via a 1.131 declaration and that Takahashi et al., Kurabayashi et al., and Watanabe et al., either alone or in combination, do not disclose the present invention.

Further, applicants' amendment and 1.132 declaration filed 11/10/05 overcomes the 35 USC 112 rejections of record.


In light of the above, the present claims are passed to issue.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Callie E. Shosho whose telephone number is 571-272-1123. The examiner can normally be reached on Monday-Friday (6:30-4:00) Alternate Fridays Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on 571-272-1119. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Callie E. Shosho
Primary Examiner
Art Unit 1714

CS
11/21/05